

REMARKS

Claims 6-8, 10-12, 15 and 18 currently appear in this application. The Office Action of May 26, 2005, has been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicants respectfully request favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

Restriction

The Examiner has required restriction between three groups of claims alleged to be separate inventions. Applicant has elected claims of Group II, claims 6-13 and 15-20. Claims 1-5 and 14 have been cancelled as being nonelected claims.

Claims 6, 9, 10 and 13 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Kobayashi et al.

This rejection is respectfully traversed. First of all, claims 9 and 13 have previously been cancelled, so rejection of these claims is moot. Applicant assumes that the rejection is directed to claims 6 and 10.

Kobayashi '215 discloses various styryl dyes and processes for producing them at column 1, line 24 to column 2, line 36, for example. However, the styryl dyes disclosed in Kobayashi'215 necessarily all have an alkoxy group or an amino

group, both of which are electron-donating groups, as a substituent of R1 of the phenyl group.

In contrast thereto, the styryl dyes of Formula I of the claimed invention do not have electron-donating groups as a substituent on the phenyl group, i.e., as a substituent of Φ_2 . In amended claims 6 and 10, Φ_2 is defined as an aromatic ring which has a substituent selected from the group consisting of halogen, cyano, nitro, and carboxyl, or a heterocycle having one or more nitrogen atoms. There is no alkoxy group or amino group as a substituent on Φ_2 .

Therefore, it is respectfully submitted that claims 6 and 10 as amended are not anticipated by Kobayashi 215.

Claims 6, 9, 10 and 13 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Dalzell et al.

This rejection is respectfully traversed. As noted above, claims 9 and 13 have been cancelled, so rejection of these claims is moot.

With respect to the rejection of claims 6 and 10, Dalzell discloses a radiation sensitive element comprising a substrate having a layer comprising a radiation sensitive tetra (aliphatic) borate salt. The tetra (aliphatic) borate salts disclosed by Dalzell are different from the styryl dyes of the present invention in both chemical structure and

properties. Thus, it is respectfully submitted that claims 6 and 10 are not anticipated by Dalzell.

Claims 6-10 and 15-20 are rejected under 35 U.S.C. 1902(b) as being fully anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kanno et al.

This rejection is respectfully traversed. Claims 9, 16, 17, 19 and 20 have already been cancelled. Applicant assumes that the rejection is addressed to claims 6-8, 10, 15 and 18.

The optical recording medium disclosed in Kanno uses a laser beam with a wavelength of 500 to 700 nm to record information (please see page 31, lines 13-24). In fact, the styryl dyes disclosed in Kanno have absorption maxima at around 600 nm, as shown in figures 5 and 6, and therefore do not substantially absorb visible light having a wavelength of around 400 nm.

In contrast to the disclosure of Kanno, the optical recording medium of the present invention uses a laser beam with a wavelength of 450 nm or shorter to record information, and the styryl dyes of the present invention substantially absorb visible light with a wavelength of around 400 nm.

In view of the differences between the styryl dyes of Kanno and the styryl dyes of the present invention, it is respectfully submitted that the claimed invention is not

anticipated by Kanno. Furthermore, since Kanno suggests nothing about an optical recording medium using a laser beam with a wavelength of 450 nm or shorter to record information, as well as styryl dyes that substantially absorb visible light with a wavelength of around 400 nm, it is respectfully submitted that claims 6-8, 10, 15 and 18 are not obvious over Kanno.

Claims 6, 9, 10 and 13 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Miyamoto et al.

This rejection is respectfully traversed. Once again, claims 9 and 13 have been cancelled, so Applicant assumes that the rejection applies to claims 6 and 10.

It should be noted that the styryl dye disclosed in Miyamoto has an amino group, which is an electron-donating groups, as a substituent of the phenyl group corresponding to Φ_2 of Formula 1 of the claimed invention. In contrast thereto, a styryl dye represent by formula 1 does not include an amino group as a substituent of Φ_2 .

Structurally, the styryl dyes disclosed in Miyamoto are different from the styryl dyes of the present invention. In fact, Miyamoto never discloses a styryl dye which substantially absorbs visible light having a wavelength of around 400 nm. Therefore, it is respectfully submitted that claims 6 and 10 are not anticipated by Miyamoto.

Claims 6-8, 10-12, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al.

This rejection is respectfully traversed. As noted above, the styryl dyes disclosed in Miyamoto have an amino group, which is an electron-donating group, as a substituent of the phenyl group corresponding to Φ_2 in Formula 1 of the present invention. In contrast thereto, a styryl dye represented by Formula 1 does not have an electron-donating group as a substituent of Φ_2 . Therefore, it is believed that the dyes disclosed in Miyamoto do not meet the limitations of the claims, nor does Miyamoto suggest anything about the claimed invention.

Claims 6, 7, 10, 11, 13, 15, 16 and 19 are rejected under 35 U.S.C. 101(b) as being anticipated by Katsuyuki, JP 11-138992.

This rejection is respectfully traversed.

Katsuyuki discloses an optical recording medium that records information with a laser beam having a wavelength of 600-680 nm or 760-800 nm (please see paragraphs 0016 to 0021), which is much longer than the wavelength of 450 nm of a laser beam used in the present invention.

Furthermore, Katsuyuki requires both styryl dyes and phthalocyanine dyes in the recording layer. In contrast thereto, the claimed invention does not require phthalocyanine

dyes. Moreover, the styryl dye disclosed in Katsuyuki has an amino group, which is an electron-donating group, as a substituent of the phenyl group corresponding to Φ_2 in "Formula 1 of the claimed invention. The styryl dye as represented by Formula 1 does not possess an amino group as a substituent of Φ_2 ."

Claims 6-8, 10-12, 15 and 18 are rejected under 35 U.S.C. 102(b) as being fully anticipated by JP11-144313, Masato et al.

This rejection is respectfully traversed. Masato et al. disclose an optical recording medium that records information with a laser beam having a wavelength of 620-690 nm, as shown in paragraphs 0006 and 0013. This, of course, is much longer than the 450 nm wavelength of a laser beam used in the present invention.

Furthermore, the styryl dye disclosed in Masato et al. has a univalent group having a negative charge as a substituent of the phenyl group corresponding to Φ_2 in Formula 1 of the present invention (please see paragraph 0008 of Masato et al.). In contrast thereto, the styryl dyes represented by Formula 1 of the present invention do not possess an amino group as a substituent of Φ_2 . Thus, it is respectfully submitted that the styryl dyes of Masato et al. are different from the styryl dyes of the present invention.

Claims 6, 7, 10 and 11 are rejected under 35 U.S.C. 102(b) as anticipated by Miura et al. The Examiner alleges that table I, in which dye B is disclosed as having an absorption maxima of 386 nm together with another dye. Benzothiazole, indole and benzopyridyl are Φ_1 moieties.

This rejection is respectfully traversed. It should be noted that the styryl dyes disclosed in Miura are used in positive silver halide photographic emulsions, and not in an optical recording medium. These dyes have nothing to do with the herein claimed invention.

Claims 6, 8, 10 and 12 are rejected under 35 U.S.C. 102

(b) as being fully anticipated by Ichimura et al.

This rejection is respectfully traversed. Ichimura discloses a contrast-enhancing agent for photolithography, which has nothing at all to do with either a light absorbent composition or an optical recording medium.

Claims 6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-018441, Takuji, JP 63-054377, Kimimasa et al. or JP62-164591, Nobutoshi et al.

This rejection is respectfully traversed. Takuji, Kimimasa and Nobutoshi disclose spiropyran or merocyanine compounds which have photochromism. There is no disclosure or

suggestion of a styryl dye as represented by Formula 1 of the claimed invention.

As stated above, none of the cited prior art discloses a light absorbent composition comprising a styryl dye that substantially absorbs visible light with a wavelength of around 400 nm and is represented by formula 1. None of the cited prior art discloses or suggests an optical recording medium comprising a styryl dye represented by formula 1 and that is capable of recording information using a laser beam with a wavelength of 450 nm or shorter.


It is noted that the prior art made of record and not relied upon is merely considered pertinent to Applicant's disclosure.

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In view of the above, it is respectfully submitted
that the claims are now in condition for allowance, and
favorable action thereon is earnestly solicited.

Respectfully submitted,

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